

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

IN RE: ASBESTOS PRODUCTS	:	
LIABILITY LITIGATION (No. VI)	:	
	X	
<hr style="width: 50%; margin-left: 0;"/>		
This Document Relates To:	:	CONSOLIDATED UNDER
	:	MDL 875
RICHARD E. ANDERSON, and LILLIAN M.	:	
ANDERSON, husband and wife,	:	CIVIL ACTION NO.
	:	10-cv-61118
	:	
Plaintiffs	:	Transferred from the
	:	Western District of Washington
v.	:	
	:	
SABERHAGEN HOLDINGS, INC., et al.	:	
	:	
Defendants.	:	
<hr style="width: 50%; margin-left: 0; border-top: 1px dashed black;"/>		

MEMORANDUM OPINION

DAVID R. STRAWBRIDGE
UNITED STATES MAGISTRATE JUDGE

February 16, 2011

I. Introduction

Richard and Lillian Anderson (collectively “Plaintiffs”), husband and wife, filed this asbestos personal injury action in the Superior Court of Washington for Pierce County on September 3, 2009, asserting claims against multiple parties including defendant Salmon Bay and Gravel Company, Inc. (alternatively “Salmon Bay” or “Defendant”), a Seattle-area retailer of tools and construction supplies. The matter was removed to the United States District Court for the Western District of Washington and then, on February 8, 2010, transferred to the Eastern District of Pennsylvania to be included in the multi-district Asbestos Liability Litigation (MDL 875). (Docs. 1, 2.)

Presently before the Court is Salmon Bay’s “Motion to Preclude Certain Testimony of

Experts Sam Hammar, MD, Andrew Brodtkin, MD and Arnold Brody, MD” (Doc. 41) (“Motion”), Plaintiffs’ Response (Doc. 49) (“Resp.”) and Salmon Bay’s Reply (Doc. 81) (“Reply”). Oral argument was heard on November 17, 2010, and the motion is now ripe for review.

II. The “Every Exposure” Opinion

Defendant asks this Court to preclude Plaintiffs’ experts Drs. Hammar, Brodtkin and Brody from offering “the opinion that any exposure to asbestos above ‘background’ is a significant contributing factor” to the development of Mr. Anderson’s mesothelioma. (Motion at 1.) Preliminarily, we note that the admissibility standard embodied in the Rules of Evidence applies only to the particular opinions to be offered by an expert in the case in which they will be called to testify. See FED. R. EVID. 702. We may therefore consider Defendant’s arguments only to the extent they apply to Plaintiffs’ particular expert opinions, and find it necessary to first clarify the opinion(s) offered by the experts the Defendant has challenged. This clarification is particularly important in light of Plaintiffs’ assertion that only Dr. Hammar has offered the opinion challenged by Defendant.

First, with regard to Dr. Brodtkin, Plaintiffs have submitted an affidavit wherein Dr. Brodtkin states unequivocally that it is not his opinion that each exposure above background is a significant contributing factor to the development of mesothelioma. (Brodtkin Decl. [Doc. 49-1] at ¶ 4.) Rather, he has opined that “the identified occupational and environmental asbestos exposures in Mr. Anderson’s case, specifically those associated with his work as a career cement mason, environmental use of asbestos-containing drywall joint compound and friction products, were of high concentration - far exceeding ambient levels - sufficient to overcome the body’s

respiratory defense mechanisms and adding to Mr. Anderson's lung burden of asbestos." (*Id.* at ¶ 6 (emphasis in original).) We have reviewed his report, and find that it confirms what Dr. Brodtkin states in his affidavit. (See Brodtkin Report [Doc. 43] at 31.) We therefore conclude, based on Dr. Brodtkin's affidavit and expert report, that he has not offered the opinion challenged by Defendant. Defendant's arguments against the admissibility of that opinion are therefore inapplicable to Dr. Brodtkin's testimony.

Second, with regard to Dr. Brody, Plaintiffs state that he was provided no case-specific materials and offers opinions only as to general causation. (Resp. at 5.) Plaintiffs also allege that Dr. Brody did not express the challenged opinion in either his report or at deposition. (*Id.*) Unfortunately, no party has made any of Dr. Brody's materials (i.e. his expert report or a transcript of his deposition testimony) a part of the record. Accordingly, we are unable determine what opinions he has offered or evaluate the reliability of those opinions or the validity of Defendant's arguments for preclusion of his testimony.

We are therefore left to consider the expert opinions offered by Dr. Hammar, who is Plaintiffs' specific causation expert. He was also the pathologist who diagnosed Mr. Anderson's mesothelioma, and has been familiar with his illness since early in its progression. (Hammar Decl. [Doc. 49-2] at ¶ 5.) He opines that "every occupational and bystander exposure to asbestos above background was a substantial contributing factor in causing Mr. Anderson's ... mesothelioma." (Motion Ex. 5 [Doc. 43-3] at ¶ 19) (hereinafter "Hammar Report.") In reaching that conclusion, Dr. Hammar considered Mr. Anderson's medical records, pathology slides and the "exposure history" provided to him by Plaintiffs' counsel. (See Hammar Report.) He then applied his opinions regarding the nature of mesothelioma and other asbestos-related diseases,

and the asbestos exposures necessary to cause them, in order to render specific opinions with regard to Mr. Anderson.

Dr. Hammar's general opinion is that where an individual has been diagnosed with mesothelioma, all asbestos exposures above "background" must be considered "substantial factors" in the development of that mesothelioma. This conclusion is derived from several other scientific opinions, which are supported by various studies, articles and other published materials. As the principal focus of Defendant's motion is the reliability of Dr. Hammar's final conclusion, we find it necessary to examine the precepts which underlie it.

Dr. Hammar first opines that the risk of contracting mesothelioma is dependent upon the cumulative exposure to asbestos a particular individual has suffered. In other words, "the greater the exposure to asbestos or inhalation of asbestos, the greater the risk is of developing mesothelioma." (Hammar Decl. at ¶ 13.) We do not understand Defendant's motion to challenge this fundamental precept.

He next opines that susceptibility to asbestos-related disease varies within the population and the dose of asbestos necessary to cause the disease is different for each individual, and largely dependent upon genetic predisposition. (Hammar Decl. at ¶¶ 8-9.) Dr. Hammar supports this opinion by discussing his own research, conducted with Dr. Ronald Dodson, where they examined the lung tissue of individuals with mesothelioma and found "a wide range of concentrations of asbestos fibers/bodies." (*Id.*) He also provides citations to several published articles supporting the opinion that susceptibility to asbestos-related disease varies according to genetics. (*Id.* at ¶¶ 9-11 (citing Neri M., et al. *Genetic Susceptibility to Malignant Pleural Mesothelioma and Other Asbestos-Associated Diseases*, 659 *Mutat Res* 126-36 (2008); Bockus

D., et al., *Familial Mesothelioma: a Report of Two Families*, 20 Human Pathol 107-12 (1989); Hillerdal G., *Mesothelioma: Cases Associated with Non-Occupational and Low Dose Exposures*, 56 Occup Environ Med 506-13 (1999); Polan, et al., *Non-occupational Exposure to Asbestos and Malignant Mesothelioma in Females*, 1 Lancet 1061-63 (1978); Goldberg, *The Health Impact of Nonoccupational Exposure to Asbestos: What do we know?*, European J. Cancer Prevention (2009).) Based on this variation within the population, Dr. Hammar opines that “it is impossible to know in any individual person how much exposure to asbestos it would take” to bring about disease. (Hammar Decl. at ¶ 8.) Some individuals may experience high-dose asbestos exposures and never develop an asbestos related disease, while others will develop such a disease from very low-dose exposures.

According to Dr. Hammar, epidemiological studies have established that exposures as low as 0.1 f/cc-years¹ cause mesothelioma in some individuals within the population, and the effects of lower dose exposures are unknown. (Hammar Decl. at ¶ 26 (citing Roggli, et al., *Pathology of Asbestos-Associated Diseases*, 2d Ed. at 26 (2003)).). He notes that 0.1 f/cc-years is the current “permissible exposure level” (“PEL”) in the United States, and was established by OSHA in 1994. (*Id.*) He also discusses two epidemiological studies which found an increased risk of mesothelioma for even very low-dose exposures to asbestos. The first epidemiological study is Iwatsubo, et al., *Pleural Mesothelioma: Dose Response Relation at Low Levels of Asbestos Exposure in a French Population-based Case-Control Study*, 148 Am J of Epidemiol 133-

¹Concentrations of asbestos fibers are generally measured in “f/cc” or “fibers per cubic centimeter” of air. A cubic centimeter is also equal to a milliliter. Cumulative asbestos exposure is measured by a time weighted average of the concentration of asbestos multiplied by the length of exposure. This measurement is usually expressed in units of f/cc-years, but can be scaled for any unit of time.

42 (1998), which found an excess of mesothelioma associated with exposures between 0.001 and 0.49 f/cc-yrs. The second study, Rodelsperger et al., *Asbestos and Man-Made Vitreous Fibers as Risk Factors for Diffuse Malignant Mesothelioma: Results from a German Hospital-Based Case-Control Study*, 39 Am J Ind Med 262-75 (2001), similarly concluded that there was a significantly increased risk of developing mesothelioma even in the lowest exposure group, which experienced exposures between 0 and 0.15 f/cc-yrs.

Dr. Hammar also discusses a quantitative risk assessment by Hodgson and Darnton, where the authors attempted to construct a linear model representing the risk of developing mesothelioma in relation to cumulative asbestos exposure. Hodgson, JT, Darnton A., *The Quantitative Risk of Mesothelioma and Lung Cancer in Relation to Asbestos Exposure*, 44 Ann Occup Hyg 565-601 (2000). The authors examined numerous epidemiological studies and created quantitative dose-risk models for the development of mesothelioma. The authors concluded by stating “we do not believe there is a good case for assuming any threshold for mesothelioma risk.” *Id.* at 585.

Finally, Dr. Hammar notes that several governmental agencies and international organizations have stated that there is no level of exposure to asbestos below which disease has been shown not to occur. (Hammar Decl. at ¶ 12.) These include the National Institute for Occupational Safety and Health (NIOSH), the Occupational Safety and Health Agency (OSHA), the World Health Organization (WHO) and the World Trade Organization (WTO). (*Id.*)

Upon review of these epidemiological studies, Hodgson and Darnton’s quantitative risk assessment and the statements of the various organizations, Dr. Hammar opines that there is no established “threshold” of exposure to asbestos below which mesothelioma is known not to

occur. He does, however, acknowledge that there is some small concentration of asbestos fibers present in the ambient air to which we are all exposed, a concentration which he terms “background” levels. These levels vary by geographic area, but according to Dr. Hammar they are below 10^{-4} f/cc (0.0001 f/cc) in most areas. (Hammar Decl. at ¶ 14 (citing Roggli, et al., *Pathology of Asbestos Associated Diseases*, Little, Brown & Co., Boston (1992) at 28-30).) He states that in the United States background levels have been reported to range from 0.00005 f/cc to 0.00023 f/cc, far lower than the 0.1 f/cc PEL shown to increase the risk of mesothelioma.

Applying these principles to Mr. Anderson, Dr. Hammar states the medical records and pathology slides demonstrate that he suffered from pleural mesothelioma caused by asbestos exposure. He notes that Mr. Anderson had a “mixed exposure to amphiboles and chrysotile” asbestos fibers, based both on the fibers found in his lung tissue and his exposure history. (*Id.* at ¶ 24.) He opines that any of the occupational or bystander exposures could have been sufficient to cause Mr. Anderson’s mesothelioma, as it is impossible to know where within the population he falls (i.e. the precise extent of exposure necessary to cause disease in Mr. Anderson specifically). Further, each exposure contributed to his cumulative dose of asbestos exposure, which determines his overall risk of developing an asbestos-related disease. Therefore, according to Dr. Hammar, each such exposure was a substantial contributing factor in the development of Mr. Anderson’s mesothelioma, and the magnitude of the contribution of each exposure is a question of the extent of that particular exposure in proportion to the others. (*Id.* at ¶ 20.)

III. Legal Standard

The standard for the admissibility of expert testimony is set forth in Federal Rule of

Evidence 702, as interpreted by the United States Supreme Court in *Daubert v. Merrel Dow Pharmaceutical, Inc.*, 509 U.S. 579 (1993). Rule 702 provides that an expert opinion is admissible to assist the trier of fact to determine a fact in issue if “(1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.” FED. R. EVID. 702. Rule 702, as is true with regard to the Federal Rules of Evidence generally, is to be interpreted liberally in favor of admission since “[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” *Daubert*, 509 U.S. 579 at 596.

The Third Circuit has described Rule 702 as being comprised of three major requirements: “(1) that the proffered witness must be an expert, *i.e.*, must be qualified; (2) the expert must testify about matters requiring scientific, technical or specialized knowledge [*i.e.* reliability]; and (3) the expert’s testimony must assist the trier of fact [*i.e.* fit].” *United States v. Schiff*, 602 F.3d 152, 172 (3d Cir. April 7, 2010) (quoting *Pineda v. Ford Motor Co.*, 502 F.3d 237, 243-44 (3d Cir. 2008)).

Defendant has not challenged the qualification of Plaintiffs’ experts, so only the “reliability” and “fit” prongs are at issue. With regard to reliability, the analysis is focused upon the expert’s process or technique rather than his conclusions, and is a flexible test to be tailored to the specific case at issue. *Daubert*, 509 U.S. at 593-94. Both the Supreme Court and the Third Circuit have suggested several non-exclusive factors to guide the lower courts in the reliability inquiry. *Daubert* directs the court to consider, among other factors, whether the theory or technique can be objectively tested, has been subject to peer review and publication, what the

known or potential rate of error is for the particular technique, whether there are standards that exist and are maintained that control the technique's operation, and whether the theory or technique is “generally accepted.” *Id.* The Third Circuit has added additional factors which may further guide the lower court’s determination, including “the relationship of the technique to methods which have been established to be reliable; the qualifications of the expert testifying based on the methodology; and the non-judicial uses to which the method has been put.” *In re Paoli R.R. Yard PCB Litigation*, 35 F.3d 717, 742, n. 8 (3d Cir. 1994).

The “fit” requirement is derived from Rule 702's imperative that the testimony “assist the trier of fact to understand the evidence or to determine a fact in issue.” FED. R. EVID. 702. The Third Circuit has described the relevant inquiry as follows:

It is typically understood in terms of whether there is a sufficient ‘fit’ between the expert's testimony and the facts that the jury is being asked to consider. In assessing whether an expert's proposed testimony ‘fits,’ we are asking whether the expert testimony proffered is sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute. Put another way, this is a question of relevance, and Rule 702, which governs the admissibility of expert testimony, has a liberal policy of admissibility if it has the potential for assisting the trier of fact. The standard is not that high, but is higher than bare relevance.

Schiff, 602 F.3d at 172-73 (internal quotations omitted).

IV. Discussion

Defendant argues that Dr. Hammar’s testimony is inadmissible under Rule 702 in that his opinions are the product of an unreliable and unscientific method. It has not challenged Dr. Hammar’s qualifications. Plaintiffs counter that his opinions are based on valid scientific studies, and are generally accepted in the scientific community. We find that Dr. Hammar’s opinions are sufficiently reliable to be admissible under Rule 702, and that Defendant’s

arguments are more appropriate for cross examination at trial.

Defendant's main argument for preclusion of Plaintiffs' experts, which it characterizes as one of "fit," relates to a fundamental factual dispute in the case - the precise type of asbestos fibers present in the Salmon Bay products to which Mr. Anderson was allegedly exposed. Defendant argues that their product contained only "Grade 7 Chrysotile"² fibers, and that Dr. Hammar's reliance upon the Iwatsubo and Rodelsperger studies is misplaced in that those studies discussed exposure to mixed amphibole and chrysotile fibers. (Motion at 8-10.) Salmon Bay argues that Dr. Hammar should have also considered other epidemiological studies which allegedly show that Grade 7 chrysotile fibers do not cause mesothelioma. (*Id.*) Plaintiffs, however, assert that the Salmon Bay products to which Mr. Anderson was exposed did contain both amphiboles and chrysotile asbestos. (Resp. at 6-7.) Dr. Hammar also states that Mr. Anderson's lung tissue and exposure history indicate that he likely suffered mixed-fiber exposures, and his opinions are based on that assumption. (Hammar Decl. at ¶ 13-14, 24.) The record before us demonstrates that there is a factual dispute not only as to what exposure Mr. Anderson may have had to Salmon Bay products, but also as to the fiber types that may or may not have been present in those products. In light of this dispute, and subject of course to the

²"Asbestos" is actually the name used for six different fibrous minerals with similar characteristics: amosite, crocidolite chrysotile and the fibrous varieties of tremolite, actinolite and anthophyllite. *Asbestos Fact Sheet*, AGENCY FOR TOXIC SUBSTANCES & DISEASE REGISTRY, available at <http://www.atsdr.cdc.gov/toxfaqs.tf.asp?id=29&tid=4> (Feb. 3, 2011). Fibers may then be distinguished on the basis of "grades" which describe fibers of different lengths. The most common grading system is the Quebec Standard dry classification method, which classifies fibers into nine grades based on fiber length. Under the Quebec system, a lower grade corresponds to a longer fiber. *Asbestos*, ENCYCLOPEDIA.COM, available at <http://www.encyclopedia.com/topic/asbestos.aspx> (Feb. 3, 2011). Fibers are generally measured in "microns" (an abbreviation for micrometer, which is equal to 0.000001 meters).

consideration of the fact finder's determination of the evidence presented, Plaintiff will be permitted to offer Dr. Hammar's testimony at trial. Defendant of course will be provided ample opportunity to test his assumptions and conclusions on cross-examination.

Defendant also argues that the "every exposure" opinion is an "unproven hypothesis" unsupported by reliable and scientific method. (Motion at 6.) As support for this argument, Defendant first points to the following exchange between Dr. Hammar and defense counsel in a deposition from another case:

Q Do you agree that your statement that [every breath of asbestos containing air above background was a potential contributing factor in causing plaintiff's mesothelioma] is a statement which is an unproven hypothesis?

A Well, I would look at it this way, is that, yeah, there's no way that you are going to prove that but there's no way that somebody is going to disprove it either.

(Motion Ex. 6 [Doc. 43-3], Deposition of Samuel Hammar in *Free v. Ametek, Inc.*, No. 07-2-04091 SEA (King County Superior Court, Dec. 13 2007) at 103:7-14.) (hereinafter "Hammar Dep. in *Free*.")

According to Defendant, this exchange demonstrates that Dr. Hammar's opinion is a mere unproven hypothesis, unsupported by reliable scientific evidence. (Motion at 7.) However, Defendant's argument ignores the exchange immediately following the quoted dialogue, where Dr. Hammar states that "I think that could be proven from carcinogenic theory to a reasonable degree of medical certainty." (Hammar Dep. in *Free* at 104.) Dr. Hammar then agrees that it is reasonable to interpret "above background" as meaning "above .1 f/cc-years." (*Id.*) In his submissions in this case, Dr. Hammar has supported this particular opinion by reference to numerous governmental and organizational standards, as well as the Rodelsperger and Iwatsubo studies and the Hodgson and Darnton risk assessment. (Hammar Decl. at ¶¶ 12-14.) We find

that the opinions offered by Dr. Hammar and discussed in the testimony cited by Defendant, considered in their entirety, are sufficiently supported by reliable scientific evidence to be admissible under Rule 702.

Additionally, as it relates to Defendant in particular, Dr. Hammar's opinion is that Mr. Anderson's exposures to asbestos from their products were substantial contributing factors to the development of his disease. Plaintiffs do not allege mere low-dose exposure to Salmon Bay products; rather they allege Mr. Anderson was exposed to asbestos from those products on a regular basis for a period of years while working at the Seattle School District. (Vol. III Anderson Dep. [Doc. 145-3] at 62-63, 131; Resp. at 3-4.) In this context, Dr. Hammar's opinion on specific causation is made arguably more reliable. While Defendant does not agree with Plaintiffs' version of the facts, this point does not mean that Plaintiff's experts should be precluded. It must be left to the jury to sort out the facts and apply these facts as they see fit to the causation theories advanced. Defendants will of course actively participate in the process and advance their arguments by cross examination as well as their own experts.

Defendant next argues that the opinions are unreliable in that Plaintiffs' experts "have no facts or data at all regarding Mr. Anderson's exposure to products allegedly sourced from Salmon Bay." (*Id.* at 9.) With regard to Dr. Hammar, we find this to be an incorrect assertion of fact. Dr. Hammar reviewed Mr. Anderson's "exposure history," which included his alleged exposures to Beadex joint compound, an asbestos-containing product sold by Salmon Bay (Resp. at 3-4), while working at the Seattle School District. (Hammar Report at 1-2.) Salmon Bay is also listed in Mr. Anderson's exposure history as a manufacturer of products to which he was exposed. (*Id.*) We therefore conclude that this argument is without merit.

Finally, Defendant argues that the opinions should be precluded in that they were “formulated for the purposes of litigation” and that Dr. Hammar has “a long history of testifying in asbestos litigation” and changed his opinion with regard to the threshold of exposure necessary to cause asbestos-related disease. (Motion at 11-13.) We acknowledge that the development of a particular opinion for the express purpose of litigation may be considered as a factor weighing in favor of preclusion. However, we also recognize that Dr. Hammar’s “long history” of testifying indicates that multiple courts have found his opinions to be sufficiently reliable to meet the admissibility standard. Indeed, as Plaintiffs point out, Dr. Hammar has testified in hundreds of asbestos cases throughout the county. (Resp. at 27-30.) The circumstance that Dr. Hammar may have formulated certain opinions for the purposes of litigation is not a sufficient basis to justify preclusion of his testimony.

V. Conclusion

We find that only Dr. Hammar has offered the opinion challenged by Defendant, and find their arguments for preclusion of that opinion to be inapplicable to Drs. Brody and Brodtkin. Additionally, we find Dr. Hammar’s opinion that “every occupational and bystander exposure to asbestos above background was a substantial contributing factor in causing Mr. Anderson’s ... mesothelioma” is sufficiently reliable to meet the admissibility standard of Rule 702, and Defendant’s arguments to the contrary are more appropriately reserved for cross examination.

Our order will follow.

BY THE COURT:

/s/ David R. Strawbridge
DAVID R. STRAWBRIDGE
UNITED STATES MAGISTRATE JUDGE